

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A bonding device for bonding an object to be bonded under pressure to a surface to be bonded by allowing a load and vibration to act on the object to be bonded, the bonding device comprising:

a bonding tool, abutting on the object to be bonded; and
a pressing unit, pressing the bonding tool to the object to be bonded;

wherein the bonding tool includes:

a ~~traverse~~ transversely elongated horn;
a vibrator, applying a longitudinal vibration to the horn in a first direction along the longitudinal direction of the horn;

a protruding part, protruding from the horn in a second direction substantially perpendicular to the first direction;

a bonding operation part, provided in the end part of the protruding part to abut on the object to be bonded; and

a heating unit, inserted into a mounting hole provided in the horn; and

wherein the heating unit is mounted into the mounting hole with a space maintained from the inner surface of the mounting hole.

Claim 2 (original): The bonding device according to claim 1, wherein a vent part is provided for preventing the transfer of heat to the vibrator in the horn between the vibrator and the bonding operation part.

Claim 3 (currently amended): The bonding device according to claim 2, wherein the vent part is a traverse transversely elongated slit in the first direction.

Claim 4 (withdrawn): The bonding device according to claim 1, wherein the heating unit is provided in a part corresponding to an antinode of the vibration of the horn.

Claim 5 (currently amended): The bonding tool for bonding an object to be bonded under pressure to a surface to be bonded by allowing a load and vibration to act on the object to be bonded, the bonding tool comprising:

a traverse transversely elongated horn;;

a vibrator, applying a longitudinal vibration to the horn in a first direction along the longitudinal direction of the horn;

a protruding part, protruding from the horn in a second direction substantially perpendicular to the first direction;

a bonding operation part, provided in the end part of the protruding part to abut on the object to be bonded; and

a heating unit, inserted into a mounting hole provided in the horn;

wherein the heating unit is mounted into the mounting hole with a space maintained from the inner surface of the mounting hole.

Claim 6 (original): The bonding tool according to claim 5, wherein a vent part is provided for preventing the transfer of heat to the vibrator in the horn between the vibrator and the bonding operation part.

Claim 7 (currently amended): The bonding tool according to claim 6, wherein the vent part is a ~~traverse~~ transversely elongated slit in the first direction.

Claim 8 (withdrawn): The bonding tool according to claim 5, wherein the heating unit is provided in a part corresponding to a antinode of the vibration of the horn.

Claim 9 (currently amended): The bonding tool for bonding an object to be bonded under pressure to a surface to be bonded by allowing a load and vibration to act on the object to be bonded, the bonding tool comprising:

a ~~traverse~~ transversely elongated horn;

a vibrator, applying a longitudinal vibration to the horn in a first direction along the longitudinal direction of the horn;

a protruding part, protruding from the horn in a second direction substantially perpendicular to the first direction;

a bonding operation part, provided in the end part of the protruding part to abut on the object to be bonded and;

a rod shaped heating unit, inserted into the first direction of the horn.

Claim 10 (original) : The bonding tool according to claim 9, wherein a vent part is provided for preventing the transfer of heat to the vibrator in the horn between the vibrator and the bonding operation part.

Claim 11 (currently amended) : The bonding tool according to claim 10, wherein the vent part is a ~~traverse~~ transversely elongated slit in the first direction.

Claim 12 (withdrawn) : The bonding tool according to claim 9, wherein the heating unit is provided in a part corresponding to an antinode of the vibration of the horn.